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Terho Kaikuranta

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WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP
BRADFORD GREEN, BUILDING 5
755 MAIN STREET, P O BOX 224
MONROE, CT 06468

EXAMINER

PIZIALI, JEFFREY J

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/714,532	Applicant(s) KAIKURANTA, TERHO	
	Examiner JEFF PIZIALI	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11/27/09;6/15/09;1/16/09;8/4/08;4/3/08.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-8,11-17,22,23,28 and 29 is/are pending in the application.
- 4a) Of the above claim(s) 22,23 and 28 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,3-8,11-17 and 29 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>8/1/08</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Priority

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

Election/Restrictions

2. ***Applicant's election with traverse of Invention I (claims 1, 3-8, 11-17, and 29)*** in the reply filed on 27 November 2009 is acknowledged. The traversal is on the ground(s):

"there would be no significant extra search or consideration burden" (see page 2 of the 27 November 2009 Election). This is not found persuasive.

This is not found persuasive because:

In establishing serious burden in accordance with MPEP §808.02, the examiner must show either separate classification thereof, a separate status in the art when they are classifiable together, or a different field of search.

The examiner has shown the inventions have separate classification:

Where Invention I is drawn to a subcombination method, and classified in class 715, subclass 858 (*i.e., methods of automatic position adjustment*), and

Where Invention II is drawn to a combination method, and classified in class 715, subclass 798 (*i.e., methods for combined movement and resizing operations*).

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This clearly shows that each invention has attained recognition in the art as a separate subject for inventive effort, and also a separate field of search.

Moreover, the **Combination** (in claim 28) as claimed does not require the particulars of the **Subcombination** as claimed (in claims 1, 3-8, 11-17, and 29) because:

The **Combination** as claimed (in claim 28) does not require:

"receiving a first position signal," as claimed in independent claim 1 (line 4);

"forming a first position on a touch based user input device in response to the first position signal," as claimed in independent claim 1 (lines 5-6);

"receiving a second position signal," as claimed in independent claim 1 (line 7);

"determining if said second position signal is a part of a simultaneous dual point user input comprising the first position signal and the second position signal," as claimed in independent claim 1 (lines 8-9);

"if the second position signal is a part of the simultaneous dual point user input, and if the input device is configured to automatically form a middle position on the input device based on the first and the second position signals," as claimed in independent claim 1 (lines 10-12);
and

*"forming a second position on said input device in a relationship to said first position and said middle position," as claimed in independent claim 1 (lines 13-14) of the **Subcombination**.*

Additionally, the **Subcombination** has separate utility, such as:

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The **Subcombination** as claimed (*in claims 1, 3-8, 11-17, and 29*) can be used without requiring:

"forming a first position in response to a first user input to a touch based user input device having a graphic user interface," as claimed in independent claim 28 (*lines 3-4*);

"forming a second position in response to a second user input to said input device, wherein said second user input is subsequent to said first user input," as claimed in independent claim 28 (*lines 6-7*);

"determining if said second user input is a part of a simultaneous dual point user input including the first user input and the second user input," as claimed in independent claim 28 (*lines 8-9*);

"switching said graphic user interface into a zooming mode, if said second user input is a part of a simultaneous dual point user input," as claimed in independent claim 28 (*lines 10-11*);

"detecting a motion/variation of said second position," as claimed in independent claim 28 (*line 12*);

"zooming in said graphic user interface, if said second position approaches said first position," as claimed in independent claim 28 (*lines 13-14*); and

"zooming out said graphic user interface, if said second position recedes said position," as claimed in independent claim 28 (*lines 15-16*) of the **Combination**.

The requirement is still deemed proper and is therefore made FINAL.

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3. ***Claim 28 is withdrawn*** from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention, there being no allowable generic or linking claim. Applicant timely traversed the restriction (election) requirement in the reply filed on 27 November 2009.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. ***Claims 1, 3-8, 11-17, and 29*** are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential structural cooperative relationships of elements, such omission amounting to a gap between the necessary structural connections. See MPEP § 2172.01.

An omitted structural cooperative relationship results from the claimed subject matter: "***if said second position signal is a part of a simultaneous dual point user input comprising the first position signal and the second position signal, and***

if the second position signal is a part of the simultaneous dual point user input, and if the input device is configured to automatically form a middle position on the input device based on the first and the second position signals" (lines 8-12).

The consecutive series of conditional statements ("if...") renders it unclear whether the subsequent limitations are or aren't required elements of the claimed invention.

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The Applicant is respectfully requested to clarify, for example, whether or not the input device must be "*configured to automatically form a middle position.*"

The Applicant is respectfully requested to clarify, for example, whether or not the second position signal is indeed "*a part of the simultaneous dual point user input.*"

7. Claim 4 recites the limitation "***said dual user input***" (line 3). There is insufficient antecedent basis for this limitation in the claim.

The Applicant is respectfully requested to clarify whether this limitation is intended to be identical to, or distinct from, the earlier claimed "*a simultaneous dual point user input*" (claim 1, line 8)

8. Claim 7 recites the limitation "***said position that is not said point of reference***" (line 7). There is insufficient antecedent basis for this limitation in the claim.

The Applicant is respectfully requested to clarify whether this limitation is intended to refer to the earlier claimed "*a first position*" (claim 1, line 5); "*a second position*" (claim 1, line 7) or "*a middle position*" (claim 1, line 11).

9. Claim 14 recites the limitation "***said second position signal input***" (line 3). There is insufficient antecedent basis for this limitation in the claim.

The Applicant is respectfully requested to clarify whether this limitation is intended to be identical to, or distinct from, the earlier claimed "*a second position signal*" (claim 1, line 7).

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10. Claim 29 recites the limitation "***said position that is not said point of reference***" (lines 4 & 7). There is insufficient antecedent basis for this limitation in the claim.

The Applicant is respectfully requested to clarify whether this limitation is intended to refer to the earlier claimed "*a first position*" (claim 1, line 5); "*a second position*" (claim 1, line 7) or "*a middle position*" (claim 1, line 11).

11. The remaining claims are rejected under 35 U.S.C. 112, second paragraph, as being dependent upon rejected base claims.

12. The claims are rejected under 35 U.S.C. 112, second paragraph, as being indefinite.

As a courtesy to the Applicant, the examiner has attempted to also make rejections over prior art -- based on the examiner's best guess interpretations of the invention that the Applicant is intending to claim.

However, the indefinite nature of the claimed subject matter naturally hinders the Office's ability to search and examine the application.

Any instantly distinguishing features and subject matter that the Applicant considers to be absent from the cited prior art is more than likely a result of the indefinite nature of the claims.

The Applicant is respectfully requested to correct the indefinite nature of the claims, which should going forward result in a more precise search and examination.

Claim Rejections - 35 USC § 102

13. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

14. *Claims 1, 3, 4, 11, 14-17* are rejected under 35 U.S.C. 102(b) as being anticipated by ***Kawasaki (JP 08-054976 A)***.

Please note, this Office action relies upon the English translation of the ***Kawasaki (JP 08-054976 A)*** document provided by the Applicant on *16 January 2009*.

Regarding claim 1, ***Kawasaki*** discloses a method, comprising:

receiving a first position signal [*e.g., Fig. 4: first point signal via 14, 16, 19*],

forming a first position [*e.g., first coordinate (a, b)*] on a touch based user input device in response to the first position signal,

receiving a second position signal [*e.g., Fig. 4: second point signal via 15, 17, 20*],

determining if said second position signal is a part of a simultaneous dual point user input [*e.g., two-point input*] comprising the first position signal and the second position signal, and

if the second position signal is a part of the simultaneous dual point user input, and

if the input device is configured to automatically form a middle position [*e.g., midpoint coordinate (m, n) between 1st and 2nd points*] on the input device based on the first and the second position signals [*e.g., $m = (a + x) / 2$ and $n = (b + y) / 2$*],

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forming a second position [e.g., *second coordinate* (x, y)] on said input device in a relationship to said first position and said middle position [e.g., $x = 2(m - a)$ and $y = 2(n - b)$] (*see the entire document, including Paragraphs 13-25*).

Regarding claim 3, **Kawasaki** discloses said first and second positions are used as coordinates of the dual point user input (*see the entire document, including Paragraphs 13-25*).

Regarding claim 4, **Kawasaki** discloses said first position is used as a coordinate for a single point user input, and

said dual user input is used for allocating a first function to said first position (*see the entire document, including Paragraphs 13-25 -- the function of forming a midpoint between 1st and 2nd positions*).

Regarding claim 11, **Kawasaki** discloses setting a dual point user input flag [e.g., *two-point coincidence sensed*],

if said second position signal is a part of the dual point user input (*see the entire document, including Paragraphs 13-25*).

Regarding claim 14, **Kawasaki** discloses said second position signal [e.g., *Fig. 4: point signal via 15, 17, 20*] is used as a new position signal of an actual single point user input [e.g., *first coordinate* $(a, b) = (x, y)$],

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if said second position signal input is determined not a part of the dual point user input
(*see the entire document, including Paragraphs 13-25*).

Regarding claim 15, **Kawasaki** discloses said input device is configured to form a single position upon receiving a position signal input [*e.g., Fig. 4: first point signal via 14, 16, 19*] in a single point user input (*see the entire document, including Paragraphs 13-25*).

Regarding claim 16, **Kawasaki** discloses storing [*e.g., via memory / store circuit*] said first position (*see the entire document, including Paragraphs 26-30*).

Regarding claim 17, **Kawasaki** discloses said middle position [*e.g., $m = (a + x) / 2$ and $n = (b + y) / 2$*] is different from said first position (*see the entire document, including Paragraphs 26-30*).

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. *Claims 5, 7, 8, 13, and 29* are rejected under 35 U.S.C. 103(a) as being unpatentable over **Kawasaki (JP 08-054976 A)** in view of **Westerman et al (US 7,030,861 B1)**.

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Regarding claim 5, **Kawasaki** discloses if the second position signal is a part of the simultaneous dual point user input is determined by:

monitoring [e.g., Fig. 2: comparator 32] said first and second position signals (*see the entire document, including Paragraphs 26-30*) .

Kawasaki does not expressly disclose monitoring the velocity/movement of dual-touch position signals.

However, **Westerman** discloses monitoring a gradient of a position signal [e.g., Fig. 7: 410, 412] from a first position to a middle position [e.g., Fig. 8: 504] (*see the entire document, including 9, Line 40 - Column 12, Line 50*).

Kawasaki and **Westerman** are analogous art, because they are from the shared inventive field of multi-touch sensing touch panels.

Therefore, it would have been obvious to combine **Westerman's** multi-touch motion gesture techniques with **Kawasaki's** touch panel, so as to accurately map core, frequently used graphical user interface commands to simple multi-finger gestures that are easy for users to execute quickly.

Regarding claim 7, **Kawasaki** does not expressly disclose detecting finger position motion.

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However, **Westerman** discloses if the input device [*e.g.*, *Fig. 7: 404*] is configured to automatically form a middle position [*e.g.*, *Fig. 8: 504*] on the input device based on the first and the second position signals [*e.g.*, *Fig. 7: 413*], the method further comprises:

detecting a motion [*e.g.*, *Fig. 7: 410*] of said middle position,
setting one of said first position or said second position as a point of reference, and
calculating a motion [*e.g.*, *Fig. 7: 412*] of said position that is not said point of reference,
by reflecting said point of reference on said middle position (*see the entire document, including 9, Line 40 - Column 12, Line 50*).

Regarding claim 8, **Kawasaki** discloses receiving a signal indicative
if said first position or said second position is to be used as a point of reference [*e.g.*, *first coordinate (a, b)*] (*see the entire document, including Paragraphs 13-25*).

Regarding claim 13, **Westerman** discloses displaying an indication [*e.g.*, *controlling common graphical user interface application operations*] that the dual point user input is used (*see the entire document, including 6, Line 19 - Column 9, Line 39*).

Regarding claim 29, **Kawasaki** discloses switching a graphic user interface of the input device into a zooming mode [*e.g.*, *Fig. 4: 240*],
if said second position signal is a part of the simultaneous dual point user input, wherein
if said position that is not said point of reference approaches said point of reference [*e.g.*, *Fig. 4: 150*], said graphic user interface cuts-text, and wherein

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if said position that is not said point of reference recedes said point of reference [*e.g.*, *Fig. 4: 154*], said graphic user interface pastes-text.

Moreover, it would have been obvious to substitute zoom-in/zoom-out operations respectively in the place of **Kawasaki's** cut/paste operations, as a design choice in circumstances where zoom-in/zoom-out operations are frequently used by the user, so as to link the most intuitive gestures [*e.g.*, *pinches and flicks*] to heavily used functions (*see Column 7, Lines 4-16*).

It would have been obvious to one of ordinary skill in the art at the time of invention, because the substitution of one known zoom-in/zoom-out operation for another cut/paste operation would have yielded predictable results to one of ordinary skill in the art at the time of the invention.

17. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Kawasaki (JP 08-054976 A)**.

Regarding claim 6, **Kawasaki** arguably discloses storing [*e.g.*, *via A/D conversion, and CPU computation*] said second position [*e.g.*, $x = 2(m - a)$ and $y = 2(n - b)$] (*see the entire document, including Paragraphs 26-30*).

Kawasaki does not expressly disclose storing said second position in a memory unit.

However, **Kawasaki** does disclose storing said first position in a memory unit [*e.g.*, *via memory / store circuit*].

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention to use **Kawasaki's** memory unit to store the second position as well, so as to protect against data loss.

18. *Claim 12* is rejected under 35 U.S.C. 103(a) as being unpatentable over ***Kawasaki (JP 08-054976 A)*** in view of the instant Application's ***Admitted Prior Art (APA)***.

Regarding claim 12, ***Kawasaki*** does not expressly disclose not setting the dual point user input flag yet still sensing a simultaneous dual point user input.

However, the ***APA*** discloses said middle position is used as the actual position of a single point user input, if said dual point user input flag is not set and if it is determined that said second position signal is a part of a simultaneous dual point user input (*see the entire APA, including Page 1, Lines 15-22*).

Kawasaki and the ***APA*** are analogous art, because they are from the shared inventive field of resistive touch pads.

Therefore, it would have been obvious to combine the ***APA's*** single middle point operation with ***Kawasaki's*** touch panel, so as to provide legacy dual-point touch panel operation for users who prefer for the touch panel to treat dual-touches as single point user inputs.

Response to Arguments

19. Applicant's arguments filed on *3 April 2008* have been fully considered but they are not persuasive.

Applicant's arguments with respect to *claims 1, 3-8, 11-17, and 29* have been considered but are moot in view of the new ground(s) of rejection.

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By such reasoning, rejection of the claims is deemed necessary, proper, and thereby maintained at this time.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The documents listed on the attached '*Notice of References Cited*' are cited to further evidence the state of the art pertaining to touch based user input methods.

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jeff Piziali whose telephone number is (571) 272-7678. The examiner can normally be reached on Monday - Friday (6:30AM - 3PM).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on (571) 272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jeff Piziali/
Primary Examiner, Art Unit 2629
12 February 2010